

ENERGY STAR Computer Servers Product List

List Current as of November 16, 2012

Below are currently qualified ENERGY STAR models available for sale in the U.S. and Canada

\* Date Available on Market is not available for products qualified prior to January 1, 2011.

\*\* Date Qualified is not available for products qualified prior to January 1, 2011.

The ENERGY STAR Computer Server Qualified Product List includes a limited amount of information on qualified computer server configurations. For more information on qualified models / configurations, please refer to the ENERGY STAR Power and Performance Data Sheet which is required to be provided on the manufacturer website where qualified product is displayed. This data sheet contains more detailed configuration information (e.g., information on installed I/O devices), performance information, and thermal characteristics of the Computer Server.

ENERGY STAR Partner	Brand	Model Name	Model Number	Additional Model List	Product Type	Product Form Factor	Service Processor Installed (Y/N)	Available Processor Sockets	Number Of Installed Processors	Processor Brand	Processor Name	Processor Speed (GHz)	System Memory (GB)	Number of Hard Drives	Total Installed Storage Capacity (GB)	Power Supply Rated Output (W)	Power Supplies Installed	Power Supplies Installed for Redundancy	Operating System Name Used for Testing	Available Power Saving Features	Enabled Power Saving Features	Power Supply Efficiency at 10% Load (%)	Power Supply Efficiency at 20% Load (%)	Power Supply Efficiency at 50% Load (%)	Power Supply Efficiency at 100% Load (%)	Power Factor at 10% Load	Power Factor at 20% Load	Power Factor at 50% Load	Power Factor at 100% Load	Idle Power Draw @ 230V (W)	Idle Power Draw @115V (W)	Idle Power Draw @100V (W)	Idle Power +/-53V DC
Acer Incorporated	Acer	AR360 F2	AR360_F2_1		3 or 4 Socket Server	Other	Yes	2	2	Intel	Xeon E5-2670		2			750	1		Windows Server 2008 R2 Standard	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.81	0.86	0.89	0.87	0.8	0.89	0.95	0.98	67.6			
Acer Incorporated	Acer	AR360 F2	AR360_F2_2		1 or 2 Socket Server	Other	Yes	2	2	Intel	Xeon E5-2650		2			750	1		Windows Server 2008 R2 Standard	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.81	0.86	0.89	0.87	0.8	0.89	0.95	0.98	68.93			
Acer Incorporated	Acer	AR360 F2	AR360_F2_3		1 or 2 Socket Server	Other	Yes	2	2	Intel	Xeon E5-2620		2			750	1		Windows Server 2008 R2 Standard	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.81	0.86	0.89	0.87	0.8	0.89	0.95	0.98	72.34			
Acer Incorporated	Acer	AR380 F2	AR380_F2_1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2690		2			920	1		Windows Server 2008 R2 Standard	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.8	0.88	0.91	0.88	0.93	0.96	0.98	0.99	133.3			
Acer Incorporated	Acer	AR380 F2	AR380_F2_2		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2650		2			920	1		Windows Server 2008 R2 Standard	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.8	0.88	0.91	0.88	0.93	0.96	0.98	0.99	130.2			
Acer Incorporated	Acer	AR380 F2	AR380_F2_3		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2620		2			920	1		Windows Server 2008 R2 Standard	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.8	0.88	0.91	0.88	0.93	0.96	0.98	0.99	134.7			
Acer Incorporated	Acer	AT350 F2	AT350_F2_1		1 or 2 Socket Server	Tower/Pedestal	Yes	2	2	Intel	Xeon E5-2690		2			920	1		Windows Server 2008 R2 Standard	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.8	0.88	0.91	0.88	0.93	0.96	0.98	0.99	121.1			
Acer Incorporated	Acer	AT350 F2	AT350_F2_2		1 or 2 Socket Server	Tower/Pedestal	Yes	2	2	Intel	Xeon E5-2650		2			920	1		Windows Server 2008 R2 Standard	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.8	0.88	0.91	0.88	0.93	0.96	0.98	0.99	120.5			
Acer Incorporated	Acer	AT350 F2	AT350_F2_3		1 or 2 Socket Server	Tower/Pedestal	Yes	2	2	Intel	Xeon E5-2620		2			920	1		Windows Server 2008 R2 Standard	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Other.Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.8	0.88	0.91	0.88	0.93	0.96	0.98	0.99	123.2			
ASUSTek Computer Inc.	ASUS	TS300-E7/P84	90S6IA2SL2B120UTT		1 or 2 Socket Server	Other	No	1	1	Intel	Xeon E31230	3.20	4.00	2	1000.00	500	1	0	Windows Server 2008 R2 Enterprise	None	N/A	0.78	0.84	0.87	0.83	0.82	0.88	0.96	0.98	44.89	45.60	0	0
ASUSTek Computer Inc.	ASUSTek COMPUTER INC.	RS520-E6/ERS8	RS520-E6/ERS8		1 or 2 Socket Server	Rackmount	No	2	2	Intel	X5650	2.66		2	292.0	770	2	1	Win Server 2008 R2	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.8	0.88	0.92	0.9	0.9	0.96	0.98	0.98	136.09			
Cisco Systems	CISCO	Cisco UMC200-M2	Cisco UMC200-M2		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon X5670 @2.93 Ghz					650	1	2	Windows Server 2008	Dynamic voltage and frequency scaling of processor (s)	Dynamic voltage and frequency scaling of processor (s)	82	89	93	91	86	95	83	96	124.7			
Cisco Systems	Cisco Systems, Inc.	Cisco UCS High-Performance Rack-Mount Server	C460 M2		3 or 4 Socket Server	Rackmount	Yes	4	4	Intel	Xeon	2.13	16.0	1	300.0	850	4	4	64-bit OS - Windows Server 2008 R2 Enterprise	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.8	0.89	0.92	0.91	0.9	0.97	0.99	1.0	307.02			
Dell Inc.	DELL	PowerEdge T60	E17S		1 or 2 Socket Server	Tower/Pedestal	Yes	2	2	Intel	Xeon	2.0	4.0	1	300.0	750	1	1	Microsoft Windows Server 2008	Power capping,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Dynamic voltage and frequency scaling of processor (s)	0.88	0.92	0.94	0.93	0.71	0.86	0.96	0.99	80.08	81.91		
Dell Inc.	DELL	PowerEdge R420	E18S		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon	1.9	2.0	1	300.0	550	1	1	Microsoft Windows Server 2008	Power capping,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Dynamic voltage and frequency scaling of processor (s)	0.83	0.91	0.94	0.93	0.9	0.96	0.98	1.0	71.25	71.44		

Draw @ T (W)	Full Load Testing Voltage/ Frequency	Full Power Load (W)	Date Available on Market*	Date Qualified**
	230 Vac, 50 Hz	104.2	9/1/2012	9/18/2012
	230 Vac, 50 Hz	87.2	9/1/2012	9/18/2012
	230 Vac, 50 Hz	90.18	9/1/2012	9/18/2012
	230 Vac, 50 Hz	170.0	9/1/2012	9/19/2012
	230 Vac, 50 Hz	154.5	9/1/2012	9/19/2012
	230 Vac, 50 Hz	155.7	9/1/2012	9/19/2012
	230 Vac, 50 Hz	125.5	7/1/2012	9/18/2012
	230 Vac, 50 Hz	124.8	7/1/2012	9/18/2012
	230 Vac, 50 Hz	125.7	7/1/2012	9/18/2012
	230 Vac, 50 Hz	117.20	4/1/2011	8/19/2011
	230 Vac, 60 Hz	307.64	4/30/2009	5/11/2011
	230 Vac, 50 Hz	294	3/17/2010	7/16/2012
	230 Vac, 50 Hz	808.8	6/1/2011	8/14/2012
	115 Vac, 60 Hz	172.77	3/5/2012	2/2/2012
	115 Vac, 60 Hz	163.56	6/5/2012	4/5/2012



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Dell Inc.	DELL	PowerEdge R520	E19S		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon	1.9	2.0	1	300.0	750	1	1	Microsoft Windows Server 2008	Power capping, Processor or core reduced power states, Dynamic voltage and frequency scaling of processor(s)	Dynamic voltage and frequency scaling of processor (s)	0.88	0.92	0.94	0.93	0.71	0.86	0.96	0.99	73.75	75.44		
Dell Inc.	DELL	PowerEdge R320	PowerEdge R320-E18S		1 or 2 Socket Server	Rackmount	Yes	1	1	Intel	Xeon	1.9	2.0	1	300.0	350	1	1	Microsoft Windows Server 2008	Variable speed fan control based on power or thermal readings, Power capping, Processor or core reduced power states, Dynamic voltage and frequency scaling of processor(s)	Dynamic voltage and frequency scaling of processor (s)	0.83	0.9	0.94	0.94	0.76	0.94	0.96	0.99	54.63	55.37		
Dell Inc.	PowerEdge	C1100	C1100 2P E5620 650W		Computer Server	1U	Yes	2.0	2.0	Intel	Xeon E5620	2.4	48.0	4.0	4000.0	650.0	2.0	1.0	Red Hat Enterprise Linux 5.4	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states	81.6	88.9	92.7	92.60000000000001	0.66	0.83	0.95	0.98	162.8	166.0	167.0	N/A
Dell Inc.	PowerEdge	R210-II	R210-II 1P E3-1220 250W		Computer Server	1U	Yes	1.0	1.0	Intel	Xeon E3-1220	3.1	4.0	2.0	1000.0	250.0	1.0	0.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power I/O states	72.39999999999999	82.6	86.0	85.8	0.96	0.98	0.99	0.99	41.58	42.41	42.43	N/A
Dell Inc.	PowerEdge	R210-II	R210-II 1P E3-1240 250W		Computer Server	1U	Yes	1.0	1.0	Intel	Xeon E3-1240	3.3	8.0	4.0	1000.0	250.0	1.0	0.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power I/O states	72.39999999999999	82.6	86.0	85.8	0.96	0.98	0.99	0.99	41.39	42.69	42.16	N/A
Dell Inc.	PowerEdge	R210-II	R210-II 1P E3-1260L 250W		Computer Server	1U	Yes	1.0	1.0	Intel	Xeon E3-1260L	2.4	16.0	4.0	584.0	250.0	1.0	0.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power I/O states	72.39999999999999	82.6	86.0	85.8	0.96	0.98	0.99	0.99	56.54	56.73	57.49	N/A
Dell Inc.	PowerEdge	R410	R410 2P X5560 500W		Computer Server	1U	Yes	2.0	2.0	Intel	Xeon X5560	2.8	64.0	2.0	900.0	500.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	79.9	88.4	92.5	92.0	0.74	0.85	0.95	0.98	179.3	186.5	185.8	N/A
Dell Inc.	PowerEdge	R410	R410 2P X5670 500W		Computer Server	1U	Yes	2.0	2.0	Intel	Xeon X5670	2.93	128.0	4.0	1800.0	500.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	79.9	88.4	92.5	92.0	0.74	0.85	0.95	0.98	197.6	198.2	198.5	N/A
Dell Inc.	PowerEdge	R415	R415 2 AMD 4122 2ea 500W PSU		Computer Server	1U	Yes	2.0	2.0	AMD	4122.0	2.2	8.0	4.0	292GB	500.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, low power I/O states	79.9	88.4	92.5	92.0	0.74	0.85	0.95	0.98	152.6	156.7	155.7	N/A
Dell Inc.	PowerEdge	R415	R415 2p AMD 4180 2ea 500W PSU		Computer Server	1U	Yes	2.0	2.0	AMD	4180.0	2.6	16.0	4.0	1200.0	500.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, low power I/O states	79.9	88.4	92.5	92.0	0.74	0.85	0.95	0.98	138.9	133.4	141.3	N/A
Dell Inc.	PowerEdge	R510	R510 2P X5570 1100W		Computer Server	2U	Yes	2.0	2.0	Intel	Xeon X5570	2.93	64.0	8.0	4800.0	1100.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	84.89999999999999	90.3	92.60000000000001	90.3	0.8	0.91	0.97	0.99	258.6	262.1	264.8	N/A
Dell Inc.	PowerEdge	R510	R510 2P X5570 1100W		Computer Server	2U	Yes	2.0	2.0	Intel	Xeon X5570	2.93	64.0	8.0	4800.0	1100.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	81.6	89.2	92.30000000000001	90.7	0.88	0.93	0.964	0.989	258.6	262.1	264.8	N/A
Dell Inc.	PowerEdge	R510	R510 2P X5570 750W		Computer Server	2U	Yes	2.0	2.0	Intel	Xeon X5570	2.93	64.0	14.0	5992.0	750.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	82.3	90.0	92.4	91.10000000000001	0.82	0.9	0.95	0.98	324.2	329.7	333.7	N/A
Dell Inc.	PowerEdge	R510	R510 2P X5670 750W		Computer Server	2U	Yes	2.0	2.0	Intel	Xeon X5670	2.93	128.0	14.0	8400.0	750.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	82.3	90.0	92.4	91.10000000000001	0.82	0.9	0.95	0.98	357.2	360.3	373.0	N/A
Dell Inc.	PowerEdge	R515	R515 2P AMD 4122 2ea 750W		Computer Server	2U	Yes	2.0	2.0	AMD	4122.0	2.2	16.0	8.0	16000.0	750.0	2.0	1.0	Microsoft Windows@B Server 2003, 2008, Redhat Linux 5.3, Citrix ZenServer 5.0, Oracle Enterprise Linux 5.0, Suse Linux Server 11	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power I/O states	82.3	90.2	92.4	91.10000000000001	0.82	0.9	0.95	0.98	192.9	196.5	198.5	N/A
Dell Inc.	PowerEdge	R515	R515 2P AMD 4174 2ea 750W		Computer Server	2U	Yes	2.0	2.0	AMD	4174.0	2.3	8.0	12.0	24000.0	750.0	2.0	1.0	Microsoft Windows@B Server 2003, 2008, Redhat Linux 5.3, Citrix ZenServer 5.0, Oracle Enterprise Linux 5.0, Suse Linux Server 11	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power I/O states	82.3	90.2	92.4	91.10000000000001	0.82	0.9	0.95	0.98	201.0	201.8	205.6	N/A
Dell Inc.	PowerEdge	R515	R515 2P AMD 4174 2ea 750W		Computer Server	2U	Yes	2.0	2.0	AMD	4174.0	2.3	8.0	6.0	3600.0	750.0	2.0	1.0	Microsoft Windows@B Server 2003, 2008, Redhat Linux 5.3, Citrix ZenServer 5.0, Oracle Enterprise Linux 5.0, Suse Linux Server 11	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power I/O states	82.3	90.2	92.4	91.10000000000001	0.82	0.9	0.95	0.98	158.4	184.1	165.0	N/A
Dell Inc.	PowerEdge	R515	R515 2P AMD 4180 2ea 750W		Computer Server	2U	Yes	2.0	2.0	AMD	4180.0	2.6	16.0	8.0	4800.0	750.0	2.0	1.0	Microsoft Windows@B Server 2003, 2008, Redhat Linux 5.3, Citrix ZenServer 5.0, Oracle Enterprise Linux 5.0, Suse Linux Server 11	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	82.3	90.2	92.4	91.10000000000001	0.82	0.9	0.95	0.98	213.6	215.5	216.7	N/A

Draw @ ° (W)	Full Load Testing Voltage / Frequency	Full Power Load (W)	Date Available on Market*	Date Qualified**
	115 Vac, 60 Hz	167.33	6/5/2012	4/6/2012
	115 Vac, 60 Hz	101.62	6/5/2012	4/6/2012
	115V / 60Hz	328.9		
	100V / 60Hz	95.08		
	100V / 60Hz	104.71		
	100V / 60Hz	96.29		
	100V / 60Hz	288.2		
	100V / 60Hz	328.2		
	115V / 60Hz	289.8		
	115V / 60Hz	229.3		
	100V / 60Hz	459.2		
	100V / 60Hz	459.2		
	100V / 60Hz	486.7		
	100V / 60Hz	482.6		
	100V / 60Hz	298.9		
	100V / 60Hz	291.8		
	100V / 60Hz	245.1		
	100V / 60Hz	420.9		



ENERGY STAR Partner	Brand	Model Name	Model Number	Additional Model List	Product Type	Product Form Factor	Service Processor Installed (Y/N)	Available Processor Sockets	Number Of Installed Processors	Processor Brand	Processor Name	Processor Speed (GHz)	System Memory (GB)	Number of Hard Drives	Total Installed Storage Capacity (GB)	Power Supply Rated Output (W)	Power Supplies Installed	Power Supplies Installed for Redundancy	Operating System Name Used for Testing	Available Power Saving Features	Enabled Power Saving Features	Power Supply Efficiency at 10% Load (%)	Power Supply Efficiency at 20% Load (%)	Power Supply Efficiency at 50% Load (%)	Power Supply Efficiency at 100% Load (%)	Power Factor at 10% Load	Power Factor at 20% Load	Power Factor at 50% Load	Power Factor at 100% Load	Idle Power Draw @ 230V (W)	Idle Power Draw @115V (W)	Idle Power Draw @100V (W)	Idle Power +/-53V DC
Dell Inc.	PowerEdge	R515	R515 2P AMD 4180 2ea 750W		Computer Server	2U	Yes	2.0	2.0	AMD	4180.0	2.6	8.0	6.0	6000.0	750.0	2.0	1.0	Microsoft Windows& Server 2003, 2008, Redhat Linux 5.3, Citrix ZenServer 5.0, Oracle Enterprise Linux 5.0, Suse Linux Server 11	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	82.3	90.2	92.4	91.10000000000001	0.82	0.9	0.95	0.98	152.4	154.2	155.6	N/A
Dell Inc.	PowerEdge	R610	R610 2P E5620 717W		Computer Server	1U	Yes	2.0	2.0	Intel	Xeon E5620	2.4	12.0	4.0	584.0	717.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	77.2	85.6	90.60000000000001	90.0	0.8	0.94	0.98	0.99	107.8	111.6	111.7	N/A
Dell Inc.	PowerEdge	R710	R710 2P E5620 570W		Computer Server	2U	Yes	2.0	2.0	Intel	Xeon E5620	2.4	12.0	4.0	584.0	570.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	81.5	88.1	92.0	91.5	0.72	0.92	0.98	0.99	112.2	113.9	114.4	N/A
Dell Inc.	PowerEdge	R710	R710 2P E5620 870W		Computer Server	2U	Yes	2.0	2.0	Intel	Xeon E5620	2.4	12.0	4.0	584.0	870.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	77.7	87.1	91.5	91.10000000000001	0.71	0.87	0.97	0.99	124.1	122.4	128.7	N/A
Dell Inc.	PowerEdge	PowerEdge R715	R715		1 or 2 Socket Server	Other	Yes	2	2	AMD	Opteron Processor 6274	2.20	32.00	2	294.00	1100	2	2	Microsoft Window Server 2008	Power capping, Processor or core reduced power states, Dynamic voltage and frequency scaling of processor(s)	Processor or core reduced power states, Dynamic voltage and frequency scaling of processor(s)	0.90	0.93	0.95	0.93	0.90	0.96	0.99	0.99	201.53	215.77	218.51	0
Dell Inc.	PowerEdge	R910	R910 4P E7540 1100W		Computer Server	Other	Yes	4.0	4.0	Intel	Xeon E7540	2.0	128.0	4.0	588.0	1100.0	4.0	2.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power I/O states	81.6	89.2	92.30000000000001	90.7	0.88	0.93	0.964	0.989	614.1	607.9	613.5	N/A
Dell Inc.	PowerEdge	T310	T310 1P X3430 400W		Computer Server	Pedestal	Yes	1.0	1.0	Intel	Xeon X3430	2.4	4.0	4.0	500.0	400.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	75.6	86.8	90.2	90.3	0.96	0.99	0.99	0.99	79.6	80.0	81.4	N/A
Dell Inc.	PowerEdge	T410	T410 2P X5560 580W		Computer Server	Pedestal	Yes	2.0	2.0	Intel	Xeon X5560	2.8	64.0	6.0	3600.0	580.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	83.3	89.3	92.2	90.9	0.86	0.94	0.97	0.99	244.4	243.1	250.0	N/A
Dell Inc.	PowerEdge	T410	T410 2P X560 580W		Computer Server	Pedestal	Yes	2.0	2.0	Intel	Intel X560	2.8	128.0	6.0	2700.0	580.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	83.3	89.3	92.2	90.9	0.86	0.94	0.97	0.99	247.8	247.5	248.2	N/A
Dell Inc.	PowerEdge	T410	T410 580W		Computer Server	Pedestal	Yes	2.0	2.0	Intel	Xeon E5620	2.4	4.0	2.0	480.0	580.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	83.3	89.3	92.2	90.9	0.86	0.94	0.97	0.99	107.8	106.9	107.8	N/A
Dell Inc.	PowerEdge	T610	T610 2P E5540 570W		Computer Server	Pedestal	Yes	2.0	2.0	Intel	Xeon E5540	2.53	12.0	4.0	584.0	570.0	2.0	1.0	Windows Server 2008	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	81.5	88.1	92.0	91.5	0.72	0.92	0.98	0.99	124.4	126.2	125.2	N/A
Dell Inc.	PowerEdge	T710	T710 2P E5520 1100W		Computer Server	Pedestal	Yes	2.0	2.0	Intel	Xeon E5520	2.26	24.0	12.0	1168.0	1100.0	2.0	1.0	Windows Server 2003	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	81.6	89.2	92.30000000000001	90.7	0.88	0.93	0.964	0.986	190.5	194.2	197.5	N/A
Dell Inc.	PowerEdge	T710	T710 2P E5620 1100W		Computer Server	Pedestal	Yes	2.0	2.0	Intel	Xeon E5620	2.4	24.0	12.0	1168.0	1100.0	2.0	1.0	Windows Server 2003	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states, low power I/O states	85.0	90.3	92.60000000000001	90.3	0.8	0.91	0.97	0.99	179.3	182.1	183.8	N/A
Fujitsu Technology Solutions GmbH	Fujitsu	PRIMERGY RX200 S5	LKN-R200S500101N		Computer Server	1U	Yes	2.0	2.0	Intel	Xeon	2.7	12.0	2.0	146.0	770.0	2.0	1.0	MS Windows Server 2008 Enterprise Edition, SP2	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	75.6	85.2	89.4	89.4	0.927	0.969	0.995	0.998	161.9	N/A	N/A	N/A
Fujitsu Technology Solutions GmbH	Fujitsu	PRIMERGY RX300 S5	LKN-R300S500211N		Computer Server	2U	Yes	2.0	2.0	Intel	Xeon	2.7	12.0	1.0	120.0	800.0	2.0	1.0	MS Windows Server 2008 Enterprise Edition, SP2	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	84.39999999999999	89.60000000000001	92.2	90.9	0.819	0.921	0.974	0.989	135.3	N/A	N/A	N/A
Fujitsu Technology Solutions GmbH	Fujitsu	PRIMERGY TX200 S5	LKN-T200S5000301N		Computer Server	Pedestal	Yes	2.0	2.0	Intel	Xeon	2.3	12.0	2.0	600.0	800.0	2.0	1.0	MS Windows Server 2008 Enterprise Edition, SP2	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	77.7	87.0	90.2	88.8	0.85	0.93	0.97	0.99	184.6	N/A	N/A	N/A
Fujitsu Technology Solutions GmbH	Fujitsu	PRIMERGY TX300 S5	LKN-T300S5000201N		Computer Server	Pedestal	Yes	2.0	2.0	Intel	Xeon	2.7	12.0	1.0	250.0	800.0	2.0	1.0	MS Windows Server 2008 Enterprise Edition, SP2	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	77.7	87.0	90.2	88.8	0.85	0.93	0.97	0.99	161.3	N/A	N/A	N/A
Fujitsu Technology Solutions GmbH	Fujitsu	PRIMERGY RX100 S6 E-StarFan1	PRIMERGY RX100 S6 E-StarFan1		Computer Server	1U	Yes	1.0	1.0	Intel	Core i3-540	3.1	2.0	0.0	0.0	350.0	1.0	0.0	MS Windows Server 2008 R2 Enterprise Edition, Vers. 6.1 (Build 7600)	Dynamic voltage and frequency scaling of processors, processor/core reduced power states, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor/core reduced power states, variable speed fan control	79.10000000000001	87.3	90.4	89.1	0.74	0.88	0.97	0.99	51.1	51.4	N/A	N/A
Hewlett-Packard Company	Hewlett-Packard	DL380 G6	491315-xx1		Computer Server	2U	Yes	2.0	2.0	Intel	X5560	2.8	12.0	1.0	120.0	750.0	1.0	1.0	Windows Server 2008 Enterprise SP1	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control, low power memory states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	86.1	90.3	92.7	91.10000000000001	0.792	0.862	0.927	0.963	138.9	N/A	N/A	N/A
Hewlett-Packard Company	Hewlett-Packard	DL380 G6	491316-xx1		Computer Server	2U	Yes	2.0	2.0	Intel	X5550	2.7	12.0	1.0	120.0	750.0	1.0	1.0	Windows Server 2008 Enterprise SP1	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control, low power memory states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	86.1	90.3	92.7	91.10000000000001	0.792	0.862	0.927	0.963	139.0	N/A	N/A	N/A

Draw @ ° (W)	Full Load Testing Voltage / Frequency	Full Power Load (W)	Date Available on Market*	Date Qualified**
	100V / 60Hz	309.4		
	100V / 60Hz	242.5		
	100V / 60Hz	241.8		
	100V / 60Hz	252.2		
	115 Vac, 60 Hz	373.20	11/16/2011	2/29/2012
	115V / 60Hz	829.1		
	100V / 60Hz	131.9		
	100V / 60Hz	442.7		
	100V / 60Hz	469.8		
	115V / 60Hz	181.3		
	100V / 60Hz	259.8		
	115V / 60Hz	322.3		
	115V / 60Hz	317.9		
	230V / 50Hz	309.4		
	230V / 50Hz	262.2		
	230V / 50Hz	284.5		
	230V / 50Hz	302.2		
	230V / 50Hz	76.6		
	230V / 50Hz	270.8		
	230V / 50Hz	260.6		



ENERGY STAR Partner	Brand	Model Name	Model Number	Additional Model List	Product Type	Product Form Factor	Service Processor Installed (Y/N)	Available Processor Sockets	Number Of Installed Processors	Processor Brand	Processor Name	Processor Speed (GHz)	System Memory (GB)	Number of Hard Drives	Total Installed Storage Capacity (GB)	Power Supply Rated Output (W)	Power Supplies Installed	Power Supplies Installed for Redundancy	Operating System Name Used for Testing	Available Power Saving Features	Enabling Power Saving Features	Power Supply Efficiency at 15% Load (%)	Power Supply Efficiency at 20% Load (%)	Power Supply Efficiency at 50% Load (%)	Power Supply Efficiency at 100% Load (%)	Power Factor at 10% Load	Power Factor at 20% Load	Power Factor at 50% Load	Power Factor at 100% Load	Idle Power Draw @ 230V (W)	Idle Power Draw @115V (W)	Idle Power Draw @100V (W)	Idle Power +/-53V DC (W)
Hewlett-Packard Company	Hewlett-Packard	DL380 G6	491335-xx1		Computer Server	2U	Yes	2.0	1.0	Intel	L5520	2.26	4.0	1.0	120.0	750.0	1.0	0.0	Windows Server 2008 Enterprise SP1	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control, low power memory states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	85.5	90.100000000000001	92.2	91.600000000000001	0.816	0.923	0.956	0.982	68.7	N/A	N/A	N/A
Hewlett-Packard Company	Hewlett-Packard	DL360 G6	504633-xx1		Computer Server	1U	Yes	2.0	2.0	Intel	X5550	2.7	12.0	1.0	120.0	750.0	1.0	1.0	Windows Server 2008 Enterprise SP1	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control, low power memory states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	85.5	90.100000000000001	92.2	91.600000000000001	0.816	0.923	0.956	0.982	130.3	N/A	N/A	N/A
Hewlett-Packard Company	Hewlett-Packard	DL385 G7	573087-xx1 (573087-001 in US)		Computer Server	2U	Yes	2.0	2.0	AMD	6174.0	2.2	16.0	1.0	72.0	750.0	2.0	1.0	Window Advanced/ Enterprise 2008 Server 6.00.6002 (SP2)	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	86.1	90.3	92.7	91.100000000000001	0.792	0.862	0.927	0.963	133.4	N/A	N/A	N/A
Hewlett-Packard Company	Hewlett-Packard	DL360 G7	576239-xx1 (576239-001 in US)		Computer Server	1U	Yes	2.0	2.0	Intel	X5650	2.66	12.0	1.0	72.0	480.0	2.0	1.0	Window Advanced/ Enterprise 2008 Server 6.00.6002 (SP2)	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	85.5	90.100000000000001	92.2	91.600000000000001	0.816	0.923	0.956	0.982	103.0	N/A	N/A	N/A
Hewlett-Packard Company	Hewlett-Packard	DL380 G7	583965-xx1 (583966-001 in US)		Computer Server	2U	Yes	2.0	2.0	Intel	X5650	2.7	12.0	1.0	72.0	750.0	2.0	1.0	Window Advanced/ Enterprise 2008 Server 6.00.6002 (SP2)	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	86.1	90.3	92.7	91.100000000000001	0.792	0.862	0.927	0.963	113.5	N/A	N/A	N/A
Hewlett-Packard Company	Hewlett-Packard	DL380 G7	583970-xx1 (583970-001 in US)		Computer Server	2U	Yes	2.0	2.0	Intel	X5660	2.7	12.0	1.0	72.0	750.0	2.0	1.0	Window Advanced/ Enterprise 2008 Server 6.00.6002 (SP2)	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	86.1	90.3	92.7	91.100000000000001	0.792	0.862	0.927	0.963	112.8	N/A	N/A	N/A
Hewlett-Packard Company	Hewlett-Packard	DL385pGen8	642135-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	AMD	Opteron 6272	2.100	32.0000	1	146.0000	750	2	1	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings.Power capping.Low power memory states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.89	0.93	0.94	0.92	0.96	0.97	0.99	1.00	150.6000			
Hewlett-Packard Company	Hewlett-Packard	DL385pGen8	642136-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	AMD	Opteron 6238	2.600	32.0000	1	300.0000	750	2	1	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings.Power capping.Low power memory states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.89	0.92	0.95	0.93	0.91	0.97	0.99	1.00	100.1000			
Hewlett-Packard Company	Hewlett-Packard	DL380eGen8	668669-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	E5-2450	2.100	24.0000	1	600.0000	750	2	1	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings.Power capping.Low power memory states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.89	0.93	0.94	0.92	0.96	0.99	0.97	1.00	93.6000			
Hewlett-Packard Company	Hewlett-Packard	DL360eGen8	668815-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	E5-2430	2.200	24.0000	1	300.0000	460	2	1	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings.Power capping.Low power memory states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.85	0.90	0.92	0.92	0.81	0.96	0.94	0.98	84.0000			
Hewlett-Packard Company	Hewlett-Packard	DL360eGen8	686212-S01		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	E5-2440	2.400	32.0000	1	300.0000	460	2	1	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings.Power capping.Low power memory states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.85	0.90	0.92	0.92	0.81	0.94	0.96	0.98	87.2500			
Hewlett-Packard Company	Hewlett-Packard	DL380pGen8 (BTO 642105-xx1)	BTO 642105-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2665	2.40	32.0	1	1000.0	750	2	1	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings.Power capping.Low power memory states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.89	0.93	0.94	0.92	0.96	0.97	0.99	1.00	107.4			
Hewlett-Packard Company	Hewlett-Packard	DL380pGen8 (BTO 642106-xx1)	BTO 642106-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2650	2.00	32.0	1	1000.0	750	2	1	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings.Power capping.Low power memory states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.89	0.93	0.94	0.92	0.96	0.97	0.99	1.00	103.0			
Hewlett-Packard Company	Hewlett-Packard	ML350pGen8 (BTO 646678-xx1)	BTO 646678-xx1		1 or 2 Socket Server	Tower/Pedestal	Yes	2	2	Intel	Xeon E5-2640	2.50	16.0	1	1000.0	750	2	1	Windows 2008 Server R2	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	0.89	0.93	0.94	0.92	0.96	0.97	0.99	1.00	142.2			
Hewlett-Packard Company	Hewlett-Packard	ML350pGen8 (BTO 646678-xx1)	BTO 646678-xx1		Computer Server	5U	Yes	2.0	2.0	Intel	E5-2640	2.5	16.0	1.0	1000.0	750.0	2.0	1.0	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings.Power capping.Low power memory states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	88.68	92.81	94.12	92.33	0.96	0.97	0.99	1.0	142.2	N/A	N/A	N/A
Hewlett-Packard Company	Hewlett-Packard	DL360pGen8 (BTO 646904-xx1)	BTO 646904-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2650	2.00	32.0	1	300.0	460	2	1	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings.Power capping.Low power memory states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.88	0.92	0.94	0.93	0.97	0.98	1.00	1.00	87.4			
Hewlett-Packard Company	Hewlett-Packard	DL360pGen8 (BTO 646905-xx1)	BTO 646905-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2690	2.90	32.0	1	300.0	750	2	1	Windows 2008 Server R2	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	0.89	0.93	0.94	0.92	0.96	0.97	0.99	1.00	93.7			

Draw @ C (W)	Full Load Testing Voltage / Frequency	Full Power Load (W)	Date Available on Market*	Date Qualified**
	230V / 50Hz	106.2		
	230V / 50Hz	233.0		
	230V / 50Hz	270.8		
	230V / 50Hz	270.9		
	230V / 50Hz	269.8		
	230V / 50Hz	274.3		
	230 Vac, 50 Hz	280.0000	7/26/2012	7/12/2012
	230 Vac, 50 Hz	237.5000	7/26/2012	7/12/2012
	230 Vac, 50 Hz	203.7000	7/13/2012	7/11/2012
	230 Vac, 50 Hz	173.9000	7/13/2012	7/12/2012
	230 Vac, 50 Hz	190.4400	7/13/2012	7/12/2012
	230 Vac, 50 Hz	239.5	3/15/2012	3/9/2012
	230 Vac, 50 Hz	205.0	3/15/2012	3/9/2012
	230 Vac, 50 Hz	252.8	3/15/2012	3/2/2012
	230V / 50Hz	252.8		
	230 Vac, 50 Hz	190.9	3/15/2012	3/9/2012
	230 Vac, 50 Hz	262.2	3/15/2012	3/9/2012



ENERGY STAR Partner	Brand	Model Name	Model Number	Additional Model List	Product Type	Product Form Factor	Service Processor Installed (Y/N)	Available Processor Sockets	Number Of Installed Processors	Processor Brand	Processor Name	Processor Speed (GHz)	System Memory (GB)	Number of Hard Drives	Total Installed Storage Capacity (GB)	Power Supply Rated Output (W)	Power Supplies Installed	Power Supplies Installed for Redundancy	Operating System Name Used for Testing	Available Power Saving Features	Enabled Power Saving Features	Power Supply Efficiency at 10% Load (%)	Power Supply Efficiency at 20% Load (%)	Power Supply Efficiency at 35% Load (%)	Power Supply Efficiency at 100% Load (%)	Power Factor at 10% Load	Power Factor at 20% Load	Power Factor at 50% Load	Power Factor at 100% Load	Idle Power Draw @ 230V (W)	Idle Power Draw @115V (W)	Idle Power Draw @100V (W)	Idle Power +/-53V DC
Hewlett- Packard Company	Hewlett- Packard	DL160Gen8 (BTO 662084-xx1)	BTO 662084-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2650	2.00	16.0	1	72.0	500	1	0	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.87	0.90	0.92	0.89	0.99	1.00	1.00	1.00	92.2			
				Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)																Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.89	0.93	0.94	0.92	0.96	0.97	0.99	1.00	109.0				
Hewlett- Packard Company	Hewlett- Packard	DL380pGen8 (BTO 662257-xx1)	BTO 662257-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2690	2.90	32.0	1	1000.0	750	2	1	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.89	0.93	0.94	0.92	0.96	0.97	0.99	1.00	109.0			
Hewlett- Packard Company	Hewlett- Packard	ML310eGen8		BTO 674787-xx1	1 or 2 Socket Server	Tower/Pedestal	Yes	1	1	Intel	E3-1240v2	3.40	4.0	1	2000.0	460	1	0	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.85	0.90	0.92	0.92	0.81	0.96	0.94	0.98	43.4			
																				Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.88	0.92	0.94	0.93	0.97	0.98	1.00	1.00	76.9			
Hewlett- Packard Company	Hewlett- Packard	DL360pGen8 (BTO 677198-xx1)	BTO 677198-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2603	1.80	8.0	1	300.0	460	1	0	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.88	0.92	0.94	0.93	0.97	0.98	1.00	1.00	76.9			
Hewlett- Packard Company	Hewlett- Packard	DL360pGen8 (BTO 677199-xx1)	BTO 677199-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2630	2.30	16.0	1	300.0	460	1	0	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.88	0.92	0.94	0.93	0.97	0.98	1.00	1.00	86.2			
				Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)																Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.88	0.92	0.94	0.93	0.97	0.98	1.00	1.00	89.8				
Hewlett- Packard Company	Hewlett- Packard	DL380pGen8 (BTO 677278-xx1)	BTO 677278-xx1		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Xeon E5-2630	2.30	32.0	1	1000.0	460	1	0	Windows 2008 Server R2	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control, low power memory states	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	88.47	91.84	94.16	92.96	0.97	0.98	1.0	1.0	89.8	N/A	N/A	N/A
Hewlett- Packard Company	Hewlett- Packard	DL380pGen8 (BTO 677278-xx1)	BTO 677278-xx1		Computer Server	2U	Yes	2.0	2.0	Intel	E5-2630	2.3	16.0	1.0	1000.0	460.0	1.0	0.0	Windows 2008 Server R2	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.89	0.93	0.94	0.92	0.96	0.97	0.99	1.00	99.6			
Hewlett- Packard Company	Hewlett- Packard	DL360 G7	DL360 G7		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	X5650	2.66	96.0	0	0.0	460	1	0	Windows 2008 Server	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.82	0.89	.93	.92	0.8	0.97	0.9	0.98	204.4	208.55	0.0	0.0
Hewlett- Packard Company	Hewlett- Packard	DL585 G7	DL585 G7		3 or 4 Socket Server	Rackmount	Yes	4	4	AMD	Opteron 6168	1.9	64.0	0	0.0	1200	1	0	Windows 2008 Server	Variable speed fan control based on power or thermal readings,Power capping,Low power memory states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.89	.93	.94	.93	0.91	0.99	0.96	1.0	257.63	265.72	0.0	0.0
Hewlett- Packard Company	HP	RSVLA-RC01	RSVLA-RC01		1 or 2 Socket Server	Rackmount	Yes	2	2	Intel	Intel Itanium Poulson Processor	1.73	8	1	146	1200	1	0	HPLUX	Dynamic voltage and frequency scaling of processor (s)	Dynamic voltage and frequency scaling of processor (s)	0.89	0.91	0.92	0.88	0.96	0.99	0.98	0.99	289.3			
Lenovo Group Limited	Lenovo	TD330	0442XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	1	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	53.9	54.9	54.3	
Lenovo Group Limited	Lenovo	TD330	0442XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	70.3	70.5	72.3	
Lenovo Group Limited	Lenovo	TD330	0443XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	1	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	53.9	54.9	54.3	
Lenovo Group Limited	Lenovo	TD330	0443XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	70.3	70.5	72.3	
Lenovo Group Limited	Lenovo	TD330	1256XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	1	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	53.9	54.9	54.3	
Lenovo Group Limited	Lenovo	TD330	1256XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	70.3	70.5	72.3	
Lenovo Group Limited	Lenovo	TD330	1261XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	1	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings,Low power I/O states,Processor or core reduced power states,Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	53.9	54.9	54.3	

Draw @ (W)	Full Load Testing Voltage / Frequency	Full Power Load (W)	Date Available on Market*	Date Qualified**
	230 Vac, 50 Hz	180.6	3/15/2012	3/7/2012
	230 Vac, 50 Hz	278.2	3/15/2012	3/5/2012
	230 Vac, 50 Hz	76.3	9/24/2012	9/26/2012
	230 Vac, 50 Hz	102.0	3/15/2012	3/9/2012
	230 Vac, 50 Hz	193.9	3/15/2012	3/9/2012
	230 Vac, 50 Hz	198.9	3/15/2012	3/2/2012
	230V / 50Hz	1989.9		
	230 Vac, 50 Hz	209.2	3/15/2012	3/5/2012
	115 Vac, 60 Hz	301.0	3/1/2010	7/25/2011
	115 Vac, 60 Hz	396.0	7/14/2010	7/14/2011
	230 Vac, 50 Hz	318.9	6/1/2012	8/3/2012
	115 Vac, 60 Hz	96.5	9/26/2012	10/15/2012
	115 Vac, 60 Hz	118.0	9/26/2012	10/15/2012
	115 Vac, 60 Hz	96.5	9/26/2012	10/15/2012
	115 Vac, 60 Hz	118.0	9/26/2012	10/15/2012
	115 Vac, 60 Hz	96.5	9/26/2012	10/15/2012
	115 Vac, 60 Hz	118.0	9/26/2012	10/15/2012
	115 Vac, 60 Hz	96.5	9/26/2012	10/15/2012



ENERGY STAR Partner	Brand	Model Name	Model Number	Additional Model List	Product Type	Product Form Factor	Service Processor Installed (Y/N)	Available Processor Sockets	Number Of Installed Processors	Processor Brand	Processor Name	Processor Speed (GHz)	System Memory (GB)	Number of Hard Drives	Total Installed Storage Capacity (GB)	Power Supply Rated Output (W)	Power Supplies Installed	Power Supplies Installed for Redundancy	Operating System Name Used for Testing	Available Power Saving Features	Enabling Power Saving Features	Power Supply Efficiency at 10% Load (%)	Power Supply Efficiency at 20% Load (%)	Power Supply Efficiency at 50% Load (%)	Power Supply Efficiency at 100% Load (%)	Power Factor at 10% Load	Power Factor at 20% Load	Power Factor at 50% Load	Power Factor at 100% Load	Idle Power Draw @ 230V (W)	Idle Power Draw @115V (W)	Idle Power Draw @100V (W)	Idle Power Draw @+53V (W)
Lenovo Group Limited	Lenovo	TD330	1261XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	70.3	70.5	72.3	
Lenovo Group Limited	Lenovo	TD330	1276XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	1	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	53.9	54.9	54.3	
Lenovo Group Limited	Lenovo	TD330	1278XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	70.3	70.5	72.3	
Lenovo Group Limited	Lenovo	TD330	1283XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	1	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	53.9	54.9	54.3	
Lenovo Group Limited	Lenovo	TD330	1283XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	70.3	70.5	72.3	
Lenovo Group Limited	Lenovo	TD330	1806XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	1	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	53.9	54.9	54.3	
Lenovo Group Limited	Lenovo	TD330	1806XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	70.3	70.5	72.3	
Lenovo Group Limited	Lenovo	TD330	1807XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	1	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	53.9	54.9	54.3	
Lenovo Group Limited	Lenovo	TD330	1807XXXX		1 or 2 Socket Server	Tower/Pedestal	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	70.3	70.5	72.3	
Lenovo Group Limited	Lenovo	RD430	3057xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	68.4	69.3	70.5	
Lenovo Group Limited	Lenovo	RD430	3058xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	68.4	69.3	70.5	
Lenovo Group Limited	Lenovo	RD430	3061xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	68.4	69.3	70.5	
Lenovo Group Limited	Lenovo	RD430	3064xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	68.4	69.3	70.5	
Lenovo Group Limited	Lenovo	RD430	3065xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	68.4	69.3	70.5	
Lenovo Group Limited	Lenovo	RD430	3069xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	68.4	69.3	70.5	
Lenovo Group Limited	Lenovo	RD430	3070xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	68.4	69.3	70.5	
Lenovo Group Limited	Lenovo	RD430	3071xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	68.4	69.3	70.5	
Lenovo Group Limited	Lenovo	RD330	3072xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	550	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.82	0.9	0.92	0.9	0.78	0.98	0.92	0.99	63.3	61.9	62.5	



Draw @ C (W)	Full Load Testing Voltage / Frequency	Full Power Load (W)	Date Available on Market*	Date Qualified**
	115 Vac, 60 Hz	118.0	9/26/2012	10/15/2012
	115 Vac, 60 Hz	96.5	9/26/2012	10/15/2012
	115 Vac, 60 Hz	118.0	9/26/2012	10/15/2012
	115 Vac, 60 Hz	96.5	9/26/2012	10/15/2012
	115 Vac, 60 Hz	118.0	9/26/2012	10/15/2012
	115 Vac, 60 Hz	96.5	9/26/2012	10/15/2012
	115 Vac, 60 Hz	118.0	9/26/2012	10/15/2012
	115 Vac, 60 Hz	96.5	9/26/2012	10/15/2012
	115 Vac, 60 Hz	118.0	9/26/2012	10/15/2012
	115 Vac, 60 Hz	96.5	9/26/2012	10/15/2012
	115 Vac, 60 Hz	118.0	9/26/2012	10/15/2012
	100 Vac, 60 Hz	105.0	7/12/2012	7/20/2012
	100 Vac, 60 Hz	105.0	7/12/2012	7/20/2012
	100 Vac, 60 Hz	105.0	7/12/2012	7/20/2012
	100 Vac, 60 Hz	105.0	7/12/2012	7/20/2012
	100 Vac, 60 Hz	105.0	7/12/2012	7/20/2012
	100 Vac, 60 Hz	105.0	7/12/2012	7/20/2012
	100 Vac, 60 Hz	105.0	7/12/2012	7/20/2012
	100 Vac, 60 Hz	105.0	7/12/2012	7/20/2012
	100 Vac, 50 Hz	106.0	7/12/2012	7/20/2012

ENERGY STAR Partner	Brand	Model Name	Model Number	Additional Model List	Product Type	Product Form Factor	Service Processor Installed (Y/N)	Available Processor Sockets	Number Of Installed Processors	Processor Brand	Processor Name	Processor Speed (GHz)	System Memory (GB)	Number of Hard Drives	Total Installed Storage Capacity (GB)	Power Supply Rated Output (W)	Power Supplies Installed	Power Supplies Installed for Redundancy	Operating System Name Used for Testing	Available Power Saving Features	Enabled Power Saving Features	Power Supply Efficiency at 10% Load (%)	Power Supply Efficiency at 20% Load (%)	Power Supply Efficiency at 35% Load (%)	Power Supply Efficiency at 100% Load (%)	Power Factor at 10% Load	Power Factor at 20% Load	Power Factor at 50% Load	Power Factor at 100% Load	Idle Power Draw @ 230V (W)	Idle Power Draw @115V (W)	Idle Power Draw @100V (W)	Idle Power +/-53V DC (W)
Lenovo Group Limited	Lenovo	RD330	3073xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	550	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.82	0.9	0.92	0.9	0.78	0.98	0.92	0.99	63.3	61.9	62.5	
Lenovo Group Limited	Lenovo	RD330	3074xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	550	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.82	0.9	0.92	0.9	0.78	0.98	0.92	0.99	63.3	61.9	62.5	
Lenovo Group Limited	Lenovo	RD330	4302xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	550	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.82	0.9	0.92	0.9	0.78	0.98	0.92	0.99	63.3	61.9	62.5	
Lenovo Group Limited	Lenovo	RD330	4304xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	550	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.82	0.9	0.92	0.9	0.78	0.98	0.92	0.99	63.3	61.9	62.5	
Lenovo Group Limited	Lenovo	RD330	4306xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	550	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.82	0.9	0.92	0.9	0.78	0.98	0.92	0.99	63.3	61.9	62.5	
Lenovo Group Limited	Lenovo	RD430	4306xxxx		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	68.4	69.3	70.5	
Lenovo Group Limited	Lenovo	RD330	RD330XXX		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	550	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.82	0.9	0.92	0.9	0.78	0.98	0.92	0.99	63.3	61.9	62.5	
Lenovo Group Limited	Lenovo	RD430	RD430XXX		1 or 2 Socket Server	Rackmount	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	300.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	68.4	69.3	70.5	
Lenovo Group Limited	Lenovo	TD330	TD330XXX		1 or 2 Socket Server	Tower/Pedestal	No	2	1	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	53.9	54.9	54.3	
Lenovo Group Limited	Lenovo	TD330	TD330XXX		1 or 2 Socket Server	Tower/Pedestal	No	2	2	Intel	Xeon E5-2470	2.3	4.0	1	1024.0	800	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.87	0.91	0.93	0.92	0.75	0.9	0.98	1.0	70.3	70.5	72.3	
Lenovo Group Limited	Lenovo	TS130	TS130XXX		1 or 2 Socket Server	Tower/Pedestal	No	1	1	Intel	Xeon E3-1275	3.4	4.0	1	500.0	280	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.84	0.86	0.83		0.98	0.99	0.99	0.99	26.58	27.0	26.66	
Lenovo Group Limited	Lenovo	TS230	TS230XXX		1 or 2 Socket Server	Tower/Pedestal	No	1	1	Intel	Xeon E3-1275	3.4	4.0	1	500.0	280	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.84	0.86	0.83		0.98	0.99	0.99	0.99	26.58	27.0	26.66	
Lenovo Group Limited	Lenovo	TS430	TS430XXX		1 or 2 Socket Server	Tower/Pedestal	No	1	1	Intel	Xeon E3-1270	3.4	4.0	1	1000.0	400	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.84	0.86	0.83		0.98	0.99	0.99	0.99	37.88	38.03	45.54	
Lenovo Group Limited	Lenovo	TS530	TS530XXX		1 or 2 Socket Server	Tower/Pedestal	No	1	1	Intel	Xeon E3-1270	3.4	4.0	1	1000.0	400	1	0	Windows Server 2008 R2	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	Variable speed fan control based on power or thermal readings.Low power I/O states.Processor or core reduced power states.Dynamic voltage and frequency scaling of processor(s)	0.84	0.86	0.83		0.98	0.99	0.99	0.99	37.88	38.03	45.54	
Lenovo Group Limited	ThinkServer RD210	3796	2DX		Computer Server	1U	Yes	2.0	2.0	Intel	Xeon	2.53	4.0	1.0	73.0	675.0	2.0	1.0	Windows Server 2008 Enterprise SP1	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	85.2	90.4	92.7	91.0	0.697	0.866	0.967	0.986	140.6	137.4	138.1	N/A
Lenovo Group Limited	ThinkServer RD220	3798	1LX		Computer Server	2U	Yes	2.0	2.0	Intel	Xeon	2.53	2.0	1.0	73.0	675.0	2.0	1.0	Windows Server 2008 Enterprise SP1	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	85.2	90.4	92.7	91.0	0.697	0.866	0.967	0.986	121.8	121.2	121.9	N/A
Lenovo Group Limited	ThinkServer RS210	6534	11X		Computer Server	1U	Yes	1.0	1.0	Intel	Xeon	2.4	2.0	2.0	144.0	351.0	1.0	1.0	Windows Server 2008 Enterprise SP1	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	74.0	82.6	87.1	85.7	0.7	0.84	0.95	0.98	60.2	60.6	60.6	N/A
Lenovo Group Limited	ThinkServer TD200x	3822	43X		Computer Server	5U	Yes	2.0	2.0	Intel	Xeon	2.4	12.0	1.0	73.0	920.0	2.0	1.0	Windows Server 2008 Enterprise SP1	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	74.4	85.0	88.6	86.8	0.845	0.903	0.959	0.975	157.8	157.3	157.8	N/A
Lenovo Group Limited	ThinkServer TS200	6530	15X		Computer Server	Tower	Yes	1.0	1.0	Intel	Xeon X3450	2.66	4.0	1.0	250.0	430.0	2.0	1.0	Windows Server 2008 Enterprise SP1	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, power capping, variable speed fan control	79.5	87.6	91.5	90.8	0.822	0.929	0.982	0.993	64.0	64.8	65.1	N/A

Draw @ C (W)	Full Load Testing Voltage / Frequency	Full Power Load (W)	Date Available on Market*	Date Qualified**
	100 Vac, 50 Hz	106.0	7/12/2012	7/20/2012
	100 Vac, 50 Hz	106.0	7/12/2012	7/20/2012
	100 Vac, 50 Hz	106.0	7/12/2012	7/20/2012
	100 Vac, 50 Hz	106.0	7/12/2012	7/20/2012
	100 Vac, 50 Hz	106.0	7/12/2012	7/20/2012
	100 Vac, 50 Hz	106.0	7/12/2012	7/20/2012
	100 Vac, 60 Hz	105.0	7/12/2012	7/20/2012
	100 Vac, 50 Hz	106.0	7/12/2012	7/20/2012
	100 Vac, 60 Hz	105.0	7/12/2012	7/20/2012
	115 Vac, 60 Hz	96.5	9/26/2012	10/15/2012
	115 Vac, 60 Hz	118.0	9/26/2012	10/15/2012
	115 Vac, 60 Hz	82.6	6/13/2011	10/25/2012
	115 Vac, 60 Hz	82.6	6/13/2011	10/25/2012
	115 Vac, 60 Hz	61.2	6/20/2011	10/25/2012
	115 Vac, 60 Hz	61.2	6/20/2011	10/25/2012
	230V / 60Hz	284.8		
	230V / 60Hz	250.2		
	230V / 60Hz	127.7		
	230V / 60Hz	290.2		
	230V / 60Hz	15.7		



ENERGY STAR Partner	Brand	Model Name	Model Number	Additional Model List	Product Type	Product Form Factor	Service Processor Installed (Y/N)	Available Processor Sockets	Number Of Installed Processors	Processor Brand	Processor Name	Processor Speed (GHz)	System Memory (GB)	Number of Hard Drives	Total Installed Storage Capacity (GB)	Power Supply Rated Output (W)	Power Supplies Installed	Power Supplies Installed for Redundancy	Operating System Name Used for Testing	Available Power Saving Features	Enabled Power Saving Features	Power Supply Efficiency at 10% Load (%)	Power Supply Efficiency at 20% Load (%)	Power Supply Efficiency at 50% Load (%)	Power Supply Efficiency at 100% Load (%)	Power Factor at 10% Load	Power Factor at 20% Load	Power Factor at 50% Load	Power Factor at 100% Load	Idle Power Draw @ 230V (W)	Idle Power Draw @115V (W)	Idle Power Draw @100V (W)	Idle Power +/-53V DC
Quanta Computer Inc.	Quanta	QSSC-S4R	QSSC-S4R		Computer Server	4U	No	4.0	2.0	Intel	E7540	2.0	8.0	1.0	80.0	850.0	2.0	1.0	Microsoft Windows Server 2008 EM64T	Dynamic voltage and frequency scaling of processors, processor or core reduced power states, variable speed fan control	N/A	80.2	89.2	92.3000000000000001	90.6000000000000001	0.899	0.965	0.995	0.999	271.8	278.7	N/A	N/A

Draw @ (W)	Full Load Testing Voltage / Frequency	Full Power Load (W)	Date Available on Market*	Date Qualified**
	115V / 60Hz	408.6		

## Definitions for Servers Product Listing Column Headers

Column Header	Definition
<b>ENERGY STAR Partner</b>	An organization that signed a Partnership Agreement with EPA to manufacture or private label ENERGY STAR qualified products.
<b>Brand</b>	An identifier assigned by the manufacturer or private labeler to a product or family/series of products for sales and marketing purposes.
<b>Model Name</b>	An identifier assigned by the manufacturer or private labeler to a product or family/series of products for sales and marketing purposes.
<b>Model Number</b>	A distinguishing identifier, usually alphanumeric, assigned to a product by the manufacturer or private labeler.
<b>Additional Model Information</b>	This column includes for the qualified model or family, family members, additional model names, model numbers and other identifying information associated with a product or family/series of products for sales and marketing purposes. Other identifying information includes, but is not limited to, SKUs, UPC codes, retail numbers, and/or descriptions of models included/not included in the reported Model Family.
<b>Product Type</b>	The maximum number of sockets supported by the system.
<b>Product Form Factor</b>	The form factor describes the physical configuration of the product.
<b>Service Processor Installed (Y/N)</b>	Indicates whether the product has an installed service processor which may perform management and monitoring functions.
<b>Available Processor Sockets</b>	The maximum number of processors the system can support.
<b>Number of Installed Processors</b>	The number of processors installed in the product's as-shipped configuration.
<b>Processor Brand</b>	The brand of the processor(s) installed in the product.
<b>Processor Name</b>	The model name or number of the processor(s) installed in the product.
<b>Processor Speed (GHz)</b>	A measure of the rate at which the processor executes instructions in GHz.
<b>System Memory (GB)</b>	The amount of dynamic random-access memory the system can support, measured in GB.





Column Header	Definition
<b>Number of Hard Drives</b>	The number of hard drives installed in the product.
<b>Total Installed Storage Capacity (GB)</b>	The amount of storage capacity the system can support, measured in GB.
<b>Power Supply Rated Output (W)</b>	The product of the current and voltage of the circuit at the maximum load the power supply is designed to support.
<b>Power Supplies Installed</b>	A power supply is defined as a self-contained component that converts a voltage input to one or more dc voltage outputs for the purpose of powering the server. The input voltage may be from an ac source or a dc source. A computer server PSU is separable from the main computer board and connects to the system via a removable or hard-wired male/female electrical connection, cable, cord or other wiring (i.e. separate from, and not integrated with, the system motherboard).
<b>Power Supplies Installed for Redundancy</b>	The number of additional power supply units that are installed explicitly for power redundancy in the product.
<b>Operating System Name Used for Testing</b>	The name of the as-shipped operating system and/or representative operating system installed for testing.
<b>Available Power Saving Features</b>	All of the power savings features (e.g., power management) available for the product that may or may not be enabled in the as-shipped default configuration.
<b>Enabled Power Saving Features</b>	The enabled power savings features (e.g., power management) in the product's as-shipped default configuration.
<b>Power Supply Efficiency @ 10% Load (%)</b>	The power supply's measured efficiency at 10% of the nameplate output current.
<b>Power Supply Efficiency @ 20% Load (%)</b>	The power supply's measured efficiency at 20% of the nameplate output current.
<b>Power Supply Efficiency @ 50% Load (%)</b>	The power supply's measured efficiency at 50% of the nameplate output current.
<b>Power Supply Efficiency @ 100% Load (%)</b>	The power supply's measured efficiency at 100% of the nameplate output current.
<b>Power Factor @ 10% Load</b>	The measured ratio of the active, or real, power (P) consumed in watts to the apparent power (S) drawn in volt-amperes at 10% of the power supply's nameplate output current.
<b>Power Factor @ 20% Load</b>	The measured ratio of the active, or real, power (P) consumed in watts to the apparent power (S) drawn in volt-amperes at 20% of the power supply's nameplate output current.





Column Header	Definition
<b>Power Factor @ 50% Load</b>	The measured ratio of the active, or real, power (P) consumed in watts to the apparent power (S) drawn in volt-amperes at 50% of the power supply's nameplate output current.
<b>Power Factor @ 100% Load</b>	The measured ratio of the active, or real, power (P) consumed in watts to the apparent power (S) drawn in volt-amperes at 100% of the power supply's nameplate output current.
<b>Idle Power Draw @ 230V (W)</b>	The measured power during the state when the product is operational, but not processing any useful workpower. Reported if the power supply type is Ac-Dc Single-output or is an Ac-Dc Multi-output supply capable of operating at 230 V output.
<b>Idle Power Draw @115V (W)</b>	The measured power during the state when the product is operational, but not processing any useful workpower. Reported if supply type is Ac-Dc Multi-output supply capable of operating at 115 V output.
<b>Idle Power Draw @100V (W)</b>	The measured power during the state when the product is operational, but not processing any useful workpower. May be reported if the server is shipped to the Japanese market.
<b>Idle Power Draw @+/-53V DC (W)</b>	The measured power during the state when the product is operational, but not processing any useful workpower. Reported if the power supply type is Dc-Dc.
<b>Full Load Testing Voltage / Frequency</b>	The frequency and voltage of the unit under test at full load.
<b>Full Power Load (W)</b>	The measured power at full load.
<b>Date Available on Market</b>	The date that the model is available for purchase.
<b>Date Qualified</b>	The date on which the product was confirmed to meet the ENERGY STAR specification.



## Key Efficiency Criteria

Qualified models meet all ENERGY STAR requirements as listed in the Version 1.1 ENERGY STAR Program Requirements for Servers that are effective as of May 15, 2009.

### A. Power Supply Efficiency Requirements

Efficiency Requirements for Computer Server Power Supplies				
Power Supply Type	Rated Output Power	10% Load	20% Load	50% Load
Multi-Output (AC-DC & DC-DC)	All Output Levels	N/A	82%	85%
Single-Output (AC-DC & DC-DC)	<= 500 watts	70%	82%	89%
	> 500–1,000 watts	75%	85%	89%
	> 1,000 watts	80%	88%	92%
Efficiency Requirements for Computer Server Power Supplies				
Power Supply Type	Rated Output Power	10% Load	20% Load	50% Load
DC-DC All	All Output Levels	N/A	N/A	N/A
AC-DC Multi-Output	All Output Levels	N/A	0.80	0.90
AC-DC Single-Output	<= 500 watts	N/A	0.80	0.90
	> 500–1,000 watts	0.65	0.80	0.90
	> 1,000 watts	0.80	0.90	0.90

Note: Power factor requirements pertain to all loading conditions where the output power is greater than or Manufacturers are still required to measure and report power factor values for loading conditions less than ENERGY STAR.

### B. Active Power Requirements

Single and Dual Processor Socket Computer Servers (1S & 2S)	
Base System Idle Power Requirements	
Computer Server System Type	Id
Category A: Standard Single Installed Processor (1P) Servers	
Category B: Managed Single Installed Processor (1P) Servers	
Category C: Standard Dual Installed Processor (2P) Servers	
Category C: Standard Dual Installed Processor (2P) Servers	
Additional Idle Power Allowances for Extra Components	
System Characteristic	Additional

	<b>100% Load</b>
	82%
	85%
	85%
	88%
	<b>100% Load</b>
	N/A
	0.95
	0.95
	0.95
	0.95

equal to 75 watts.  
75 watts to qualify for

	<b>Idle Power Limit</b>
	55.0 watts
	65.0 watts
	100.0 watts
	150.0 watts
<b>Idle Power Allowances</b>	



Additional Power Supplies	20.0 watts per Power
Additional Hard Drives	8.0 watts per Hard Dri
Additional Memory	2.0 watts per GB
Additional I/O Devices	40 Watts No Alternates
<b>Computer Servers with Greater than Two Processor Sockets (3S &amp; 4S)</b>	
Systems must be shipped with power management functionality enabled on the system BIOS and/or a management co processor.	
All processors must be able to reduce power consumption in times of low utilization by either:	
<ul style="list-style-type: none"> <li>- Reducing voltage and/or frequency through Dynamic Voltage and Frequency Scaling (DVFS), or</li> <li>- Using processor or core reduced power states when a core or socket is not being used.</li> </ul>	

Supply
ve
Controller of service